



April 25, 2014

To: Executive Board

Subject: **Foothill Transit Arcadia Facility Service and Maintenance Review**

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### **Recommendation**

Receive and file a report on on-street service and fleet and facility maintenance at Foothill Transit's Arcadia Operations and Maintenance facility.

### **Background**

In February 2013, the Executive Board received a Service and Maintenance Review on both Foothill Transit facilities operated by First Transit, as well as an action plan developed with First Transit to address service quality issues.

Beginning in August 2013, the Executive Board received and filed monthly reports on Foothill Transit's bus service and fleet and facility maintenance operated by First Transit Arcadia. Of particular concern were increases in missed service due to operator and vehicle shortages. The most frequent occurrence of this missed service took place in July 2013. Decreased customer satisfaction with service provided by First Transit Arcadia was also evidenced by an increase in customer complaints submitted and presented during public comment at meetings of the Executive Board.

Foothill Transit's Arcadia facility operates 15 lines, including the Silver Streak, Line 187, and Line 690, utilizing 146 compressed natural gas (CNG) buses. First Transit provides these services through the employment of 395 coach operators, dispatchers, technicians and administrative personnel.

As outlined in the contract, the operations and maintenance contractors:

“...shall coordinate, manage, and control all activities necessary to perform Work and carry out its responsibilities under this Agreement, which include, but are not limited to, the following: maintaining all Revenue Vehicles and Non-Revenue Vehicles; providing Non-Revenue Vehicles for support and relief; providing operators, mechanics and all other project personnel, training personnel as necessary; developing administrative procedures and financial records; providing security for the Revenue and Non-Revenue Vehicles and the Facility; and developing methods to improve effectiveness and maximize service efficiency.”



## **Analysis**

The sections below provide additional information on First Transit's performance at the Arcadia Operations and Maintenance Facility.

On November 12, 2013 staff issued a letter to First Transit Arcadia stipulating a graduated timeline of performance standards in the areas of missed service, miles between service interruptions and on-time performance. While the letter outlined anticipated service improvements through February 2014, staff continues to measure achievement toward these performance standards. In March, First Transit Arcadia met one out of the three performance standards.

<b>First Transit Arcadia Missed Service</b>		
<b>Performance Standard</b>	<b>Month</b>	<b>Met?</b>
Fewer than 3 trips missed in any rolling three-day period	March	No
Fewer than 3 trips missed in any rolling three-day period	February	No
Fewer than 6 trips missed in any rolling three-day period	January	No
Fewer than 10 trips missed in any rolling three-day period	December	No

<b>First Transit Arcadia Fleet Maintenance</b>		
<b>Performance Standard</b>	<b>Month</b>	<b>Met?</b>
Minimum of 15,000 miles between mechanical service interruptions	March	Yes
Minimum of 15,000 miles between mechanical service interruptions	February	Yes
Minimum of 12,500 miles between mechanical service interruptions	January	Yes
Minimum of 10,000 miles between mechanical service interruptions	December	Yes

<b>First Transit Arcadia Schedule Adherence</b>		
<b>Performance Standard</b>	<b>Month</b>	<b>Met?</b>
85% average monthly on-time performance on all lines operated	March	No
85% average monthly on-time performance on all lines operated	February	No
80% average monthly on-time performance on all lines operated	January	Yes
75% average monthly on-time performance on all lines operated	December	Yes

## **Safety**

Safety is Foothill Transit's primary goal. To measure the effectiveness of our safety initiatives, we have established a performance target of 0.60 preventable accidents per 100,000 miles for FY 2014. Preventable accidents are defined as: 1) accidents caused by a worker's failure to do everything that he or she could reasonably be expected to do to prevent the accident, or 2) accidents caused by the vehicle operator's failure to react reasonably to the error of others. The chart below reports the 12-month performance of First Transit Arcadia in comparison to system-wide performance.



Month	Arcadia Performance	System Performance
April 2013	0.52	0.61
May 2013	0.68	0.60
June 2013	0.54	0.54
July 2013	1.02	0.68
August 2013	0.51	0.42
September 2013	0.54	0.45
October 2013	0.50	0.50
November 2013	0.54	0.54
December 2013	0.51	0.44
January 2014	1.34	0.84
February 2014	0.57	0.37
March 2014	0.51	0.42
<b>12-Month Average</b>	<b>0.65</b>	<b>0.53</b>

First Transit Arcadia reported three preventable accidents in March, averaging 0.51 preventable accidents per 100,000 miles. This meets the performance target. Due to the high number of preventable accidents experienced at the Arcadia facility earlier this year, however, their 12-month safety performance does not meet the performance target.

All the preventable accidents at the Arcadia facility this fiscal year have been collisions. Over two-thirds were collisions with fixed objects. First Transit has launched campaigns to address and reduce these types of collisions. The remainder were collisions with motor vehicles.

Please note that one preventable accident that occurred at the Arcadia facility in late February was not included in last month's report. This increases their February safety performance to 0.57 accidents from the previously reported figure of 0.38 accidents.

### **Service Delivery**

Missed service is monitored as an indicator of the quality of service provided to Foothill Transit customers. To measure progress towards reducing missed service, staff established the following performance standards in November 2013 for First Transit Arcadia:

Missed Service Performance Standard	Target Date	Met?
Fewer than 10 trips missed in any rolling three-day period	December 31, 2013	No
Fewer than 6 trips missed in any rolling three-day period	January 31, 2014	No
Fewer than 3 trips missed in any rolling three-day period	February 28, 2014	No



For the purposes of this benchmark, a trip is considered missed if more than half of the scheduled miles were missed. In March 2014, First Transit Arcadia did not meet any of the missed service performance standards set for the prior months.

Month	Number of rolling three-day periods with		
	≥ 10 missed trips	≥ 6 missed trips	≥ 3 missed trips
July 2013	17	24	28
August 2013	11	22	26
September 2013	9	14	21
October 2013	6	17	28
November 2013	7	17	24
December 2013	3	6	22
January 2014	0	4	19
February 2014	5	8	22
March 2014	3	9	19

First Transit Arcadia has made significant progress in service delivery since July 2013. The number of service miles missed by First Transit Arcadia decreased 77 percent from July to January. From January to March, however, missed service has increased nine percent at the Arcadia facility. The majority of miles missed at First Transit Arcadia is due to mechanical issues.

First Transit Arcadia also continues to miss four times as much service as First Transit Pomona. The tables below summarize missed service at First Transit Arcadia and First Transit Pomona.

Month	First Transit Arcadia			First Transit Pomona		
	Trips with missed service <sup>1</sup>	Missed service miles	Scheduled service miles	Trips with missed service <sup>1</sup>	Missed service miles	Scheduled service miles
July 2013	292	5,520	475,968	7	107	416,211
August 2013	140	2,271	475,968	24	465	416,211
September 2013	181	2,829	451,602	24	478	390,343
October 2013	126	1,916	482,952	24	464	425,854
November 2013	99	1,535	452,829	11	192	389,972
December 2013	86	1,397	474,706	28	432	412,480
January 2014	88	1,292	481,778	19	255	434,742
February 2014	96	1,280	428,995	24	426	394,297
March 2014	89	1,411	474,706	20	346	435,182

<sup>1</sup>Trips on which any portion of scheduled service was missed.



Service miles missed by First Transit Arcadia				
Month	Cause			Monthly total
	Operator issues	Mechanical issues	Other <sup>1</sup>	
July 2013	3,903	1,417	200	5,520
August 2013	322	1,822	127	2,271
September 2013	975	1,638	216	2,829
October 2013	109	1,672	134	1,916
November 2013	149	1,361	25	1,535
December 2013	47	1,247	103	1,397
January 2014	60	1,020	212	1,292
February 2014	77	1,020	182	1,280
March 2014	178	1,135	98	1,411

<sup>1</sup>Includes accidents, emergencies, passenger disruptions, and traffic.

While First Transit successfully reduced operator-related causes of missed service between July and December, operator-related missed service has increased more than threefold since then. In March, First Transit Arcadia missed 147 miles of service due to lack of operators. Although First Transit has retained the same number of operators on staff as in previous months (291 operators), in March an average of 13 percent of operators were scheduled to be unavailable on a given day, leading to significantly decreased staff levels. An average of only 235 operators were available for duty in March 2014, compared to an average of 241 operators available from December to February.

### **Roadcalls**

One of Foothill Transit's customer service goals is to provide service with an average of at least 15,000 miles between service interruptions caused by mechanical problems ("roadcalls"). To ensure that consistent progress is made towards this goal, in November 2013 staff established the following timeline of performance targets to be achieved by First Transit Arcadia.

Fleet Maintenance Performance Standard	Target Date	Met?
Minimum of 10,000 miles between mechanical service interruptions	December 31, 2013	Yes
Minimum of 12,500 miles between mechanical service interruptions	January 31, 2014	Yes
Minimum of 15,000 miles between mechanical service interruptions	February 28, 2014	Yes

Since November, First Transit Arcadia has consistently met the fleet maintenance performance standards. In March, First Transit Arcadia averaged 18,875 miles between roadcalls. This is a 12-month high and meets Foothill Transit's overall target of 15,000





miles between roadcalls, as well as the performance target set for last month. However, First Transit Arcadia's 12-month average (11,988 miles) remains short of the overall target, as shown in the table below.

Month	Arcadia Performance	System Performance
April 2013	9,106	12,879
May 2013	9,011	12,017
June 2013	8,327	12,038
July 2013	8,543	12,161
August 2013	12,281	15,941
September 2013	12,128	16,780
October 2013	9,219	14,023
November 2013	12,154	16,586
December 2013	13,003	17,611
January 2014	15,655	18,964
February 2014	15,554	20,543
March 2014	18,875	22,744
<b>12-Month Average</b>	<b>11,988</b>	<b>16,024</b>

As mentioned previously, the majority of service missed by the contractor continues to be due to breakdowns. The older 1100-series diesel buses (model year 2000) have been retired from service and replaced by new CNG vehicles. Despite this, eighty percent of service missed by First Transit Arcadia in March was related to mechanical problems. The 1600- (model year 2006) series buses accounted for almost half of all miles missed due to breakdowns. The 1700- series buses (model year 2009) and the 1400-series buses (model year 2004) each accounted for an additional 15 percent of miles missed due to mechanical issues.

### **Schedule Adherence**

The Foothill Transit SMART*Bus* System (SBS) monitors schedule adherence by collecting time and location data at every timepoint a bus passes. The SMART*Bus* system provides a framework for identifying and addressing schedule adherence issues, even as work continues on improving the data collection process. The numbers contained in this report have been analyzed for reliability and adjusted to address issues with the SBS.

Foothill Transit's system goal for schedule adherence is for buses to arrive on schedule at 90 percent or more of all timepoints. To help achieve this customer service goal, in November 2013 staff set the following schedule adherence performance standards for First Transit Arcadia:



Schedule Adherence Performance Standard	Target Date	Met?
75% average monthly on-time performance on all lines operated	December 31, 2013	Yes
80% average monthly on-time performance on all lines operated	January 31, 2014	Yes
85% average monthly on-time performance on all lines operated	February 28, 2014	No

In March 2014, First Transit Arcadia did not meet the previous two schedule adherence targets, averaging 78 percent on-time performance on all lines operated.

Schedule adherence on lines operated by First Transit Arcadia					
Line	November 2013	December 2013	January 2014	February 2014	March 2014
178	68.5%	76.6%	81.0%	79.4%	80.6%
185	73.2%	73.0%	75.4%	71.7%	69.2%
187	74.2%	79.2%	77.9%	77.2%	75.4%
269	75.1%	80.1%	82.5%	80.4%	81.7%
272	76.5%	78.6%	80.8%	79.4%	78.6%
274	87.8%	92.3%	93.0%	90.8%	86.1%
280	75.6%	82.6%	84.1%	83.1%	79.4%
281	76.5%	84.0%	85.5%	83.2%	80.7%
284	86.7%	81.2%	84.6%	86.2%	80.8%
480	70.7%	77.0%	77.5%	76.3%	74.5%
494	64.8%	63.5%	70.6%	75.2%	71.1%
851	84.7%	69.6%	71.8%	69.3%	68.1%
<b>Local subtotal</b>	<b>74.6%</b>	<b>79.4%</b>	<b>80.7%</b>	<b>79.3%</b>	<b>77.8%</b>
481	74.6%	74.9%	75.6%	72.9%	77.6%
690	92.5%	93.3%	95.1%	94.4%	95.5%
Silver Streak	74.5%	78.2%	82.4%	79.7%	74.3%
<b>Local Express subtotal</b>	<b>75.2%</b>	<b>78.5%</b>	<b>82.4%</b>	<b>79.8%</b>	<b>76.9%</b>
<b>Total</b>	<b>74.8%</b>	<b>79.2%</b>	<b>81.0%</b>	<b>79.4%</b>	<b>77.7%</b>

From November to January, overall on-time performance on lines operated by First Transit Arcadia improved 8 percent. In late November 2013, the agency implemented a schedule change that adjusted running times to better reflect current traffic conditions. In March, however, schedule adherence significantly decreased, particularly on Lines 187, 274, 280, 281, 284, and the Silver Streak.



### **Customer Comments**

Another indicator of the level of customer service provided is the number of complaints received per 100,000 boardings. Foothill Transit's performance target for the current fiscal year is 10.25 complaints per 100,000 boardings. Foothill Transit's management team monitors customer comments received via telephone, email, mail, social media, and in person.

In March 2014, First Transit Arcadia received 13.90 complaints per 100,000 boardings. While this is an improvement over June 2013, First Transit Arcadia has received more complaints than First Transit Pomona in eleven out of the last 12 months. The Arcadia facility's 12-month average complaint rate is 25 percent higher than that at Pomona. The chart below shows the number of complaints received per 100,000 boardings by First Transit Arcadia compared to complaints received by First Transit Pomona and system-wide.

Month	Arcadia Performance	Pomona Performance	System Performance
April 2013	10.19	5.74	8.28
May 2013	11.23	8.67	10.08
June 2013	23.61	14.85	19.52
July 2013	20.22	11.43	16.35
August 2013	17.89	20.92	19.65
September 2013	21.26	15.80	18.76
October 2013	15.57	13.88	14.80
November 2013	18.71	16.69	17.89
December 2013	16.82	15.55	16.44
January 2014	12.87	9.03	11.15
February 2014	13.24	13.12	13.10
March 2014	13.90	10.31	12.33
<b>12-Month Average</b>	<b>16.29</b>	<b>12.99</b>	<b>14.86</b>

The majority of complaints continue to be regarding schedule adherence (49 percent) and courtesy (34 percent). In March, the Silver Streak received the highest number of complaints (20 percent of all complaints). The majority were regarding schedule adherence, reflecting the decrease in on-time performance documented by SBS. The Silver Streak also received more than twice as many courtesy complaints as any other line. However, the Silver Streak also received the highest number of compliments in March (27 percent of all compliments).





**Next steps**

Staff will continue to monitor and report to the Executive Board on the maintenance and operations service provided by First Transit Arcadia.

**Budget Impact**

This is a status update item only. There is no budget impact.

Sincerely,

A handwritten signature in blue ink, appearing to read 'LaShawn King Gillespie'.

LaShawn King Gillespie  
Director of Customer Service and Operations

A handwritten signature in blue ink, appearing to read 'Doran J. Barnes'.

Doran J. Barnes  
Executive Director